UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/558,787 | 04/26/2000 | Yuriko Kishitaka | SONYJP3.0-114 | 1701 |

530 7590 07/18/2007

LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

| EXAMINER | |
|---|---|
| LONSBERRY, HUNTER B | |
| **ART UNIT** | **PAPER NUMBER** |
| 2623 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 07/18/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/558,787 | KISHITAKA ET AL. | |
| | Examiner | Art Unit | |
| | Hunter B. Lonsberry | 2623 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *09 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,4-7 and 10-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7 and 10-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 4/9/07 have been fully considered but they are not persuasive.

Applicant argues the Bruls reference, but does not argue the combination of references. (pages 6-9)

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Further Applicant is arguing features of Bruls, in which other references in the combination teach, for example the power on features.

Applicant argues that Bruls does not teach determining any buffer size, and that determining a maximum buffer size is different from an optimal buffer size in accordance with a bit rate value or performing it in response to a power on signal. Applicant further argues that Bruls reserves a fixed data space which is different than determining a buffer size. (pages 6-9).

The Examiner disagrees. Bruls discloses a buffering system that prestores bitrate information related to a program which has a start and end time specified by a user in advance and utilizes different bitrates according to the contents of the signal (source of origin), additionally the bitrate may be a prestored value based upon the average bitrate of incoming transport stream signals over time, (paragraphs 22-26, 28) thus maximizing the available buffer space by utilizing a bitrate that is appropriate for the content signal.

Applicants own specification merely mentions that in a FIFO buffering system, that an optimal size is one that prevents buffer overflow, and the claim requires sizing, which is preformed in correspondence with a bitrate of an incoming stream. The examiner notes that there is no FIFO buffer requirement in the claims, indeed no specific medium is required by the claim in order for a data storage device of any kind to be considered a buffer. Determining the maximum available buffer size is an optimal buffer size, it utilizes the most available space for buffered data (see paragraphs 25-26), thus providing an optimal condition for the data.

Further Bruls teaches the use of erasable compact disks, tape media, or magneto optic media or hard disks as a buffering media. This meets the definition of a buffer in that the data is temporarily stored.

Applicant's failure to traverse the Official Notice(s) taken in the previous office action is taken as admission of prior art.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4-7, and 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,892,508 to Howe in view of U.S. Patent 5,978,855 to Metz, The IEEE Standard for a High Performance Serial Bus (hereafter 1394), U.S. Patent Application 2002/0012530 to Bruls, U.S. Patent 6,020,882 to Kinghorn, and U.S. Patent 6,212,632 to Surine.

Regarding claims 1, 6, 7 and 12, Howe discloses a broadcast receiver 100 (figure 8) for separating multiplexed transport stream data (digital MPEG2 streams encapsulated in ATM cells, column 9, lines 54-65, column 21, lines 20-29),

A receiving unit 1218 for receiving the multiplexed transport stream data (column 21, lines 21-29),

A memory 1229/1230,

A processing unit 1228 (column 22, lines 10-27).

Howe fails to disclose a memory for storing said received transport stream data and containing a pre-stored bit-rate value that indicates the bit-rate of the transport stream before receipt of the transport stream and corresponding to a country of origin of the broadcast, a processing unit which reads the prestored bit rate value and

determines an optimal buffer size in accordance with a bit rate of said received transport stream data,, and reserves in memory in response to a power on signal in the receiver, a storage area having a optimal buffer size, and a demultiplexer which utilizes the storage area for separating transport packets from the received transport stream.

Metz discloses in Figure 6, a Set top box 100, which receives MPEG 2 video encapsulated in ATM cells that encapsulated by ATM multiplexer 29, an ATM demux and MPEG system demux 127 within the STB 100 reassembles the MPEG video/audio prior to it being supplied to audio decoder 131 and video decoder 129 (column 16, line 48-column 17, line 16, column 23, lines 16-56, column 32, lines 4-31). Metz inherently includes a buffer, as a buffer is required to store the ATM cells prior to reassembling the cells into MPEG 2 streams.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify Howe to transmit MPEG 2 video encapsulated in ATM cells which is converted back into MPEG 2 video at the Set Top Box which utilizes a demultiplexer and memory as taught by Metz thus providing more bandwidth for each channel.

The combination of Howe and Metz fails to disclose a memory for storing said received transport stream data and containing a pre-stored bit-rate value that indicates the bit-rate of the transport stream before receipt of the transport stream and corresponding to a country of origin of the broadcast, a processing unit which reads the prestored bit rate value and determines an optimal buffer size in accordance with a bit rate of said received transport stream data,, and reserves in memory in response to a power on signal in the receiver, a storage area having a optimal buffer size.

The 1394 reference discloses, that in response to a power on signal, a receiver receives information regarding the bandwidth (bitrate) of the transport stream data to be transmitted as well as the source of the data during a handshake operation, this bandwidth is then utilized for the transmission of data ( pages 19-20, 209-227, 241-242 and 343-351) in order to ensure that data is routed properly to the correct device at the correct bandwidth.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe and Metz to utilize the power on features, bit rate storage and source of origin features as taught by the 1394 reference, for the advantage of ensuring that the data is routed properly to the correct device at the correct bandwidth.

The combination of Howe, Metz and 1394 fails to disclose a memory for storing said received transport stream data and a corresponding country of origin, a processing unit which reads the prestored bit rate value and determines an optimal buffer size in accordance with a bit rate of said received transport stream data, and reserves in memory in response to a power on signal in the receiver, a storage area having a optimal buffer size.

Kinghorn discloses a receiver, which receives a classification code that indicates a country of origin (column 7, lines 8-29, 60-column 8, line 4) and allows a user to select programming from particular countries (figure 5 d/e, column 10, lines 31-54). A user may exclude programs from certain regions, which may be desirable when a particular

country is transmitting propaganda material, excessive levels of violence or sexual content (column 10, lines 39-54).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, and 1394 to utilize the country codes and filtering features as taught by Kinghorn, for the advantage of enabling the user to filter through objectionable programming (column 10, lines 39-54).

The combination of Howe, Metz, 1394 and Kinghorn, fails to disclose a memory for storing said received transport stream data and a corresponding country of origin, a processing unit which reads the prestored bit rate value and determines an optimal buffer size in accordance with a bit rate of said received transport stream data, and reserves in memory in response to a power on signal in the receiver, a storage area having a optimal buffer size

Bruls discloses a buffering system that prestores bitrate information related to a program which has a start and end time specified by a user in advance and utilizes different bitrates according to the contents of the signal (source of origin), additionally the bitrate may be a prestored value based upon the average bitrate of incoming transport stream signals over time, (paragraphs 22-26, 28) thus maximizing the available buffer space by utilizing a bitrate that is appropriate for the content signal.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, 1394, and Kinghorn to prestore a bitrate value based on transport stream data and source of origin, as taught by Bruls,

thus maximizing the available buffer space by utilizing a bitrate that is appropriate for the content signal.

The combination of Howe, Metz, 1394, Bruls and Kinghorn fails to disclose performing the buffer size determination after a power on signal is issued

Surine discloses a buffer function, which is loaded from ROM and then is setup within an embedded computer system's RAM for allocating buffer memory upon the powering up of the device (figures 8, 9, column 4, lines 46-column 6, line 2, column 7, lines 45-57, column 8, line 65-column 9, line 21), thus ensuring that a buffer would be available as soon as possible. Surine inherently detects a power up signal, as Surine discloses in Figure 8 and 9, that the boot code from the ROM is executed after power up steps 801 and 901.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, 1394, Kinghorn and Bruls to load up a buffer program upon device startup as taught by Surine, thus enabling a device to receive and process data as soon as possible.

Regarding claims 4, 5, 10, and 11, Howe discloses the use of non-volatile memory 1214 for storing information (column 21, lines 1-29). Howe does not disclose storing the buffer size-determining program in non-volatile memory, but does disclose memory 1229 and 1230 for storing system software (column 22, lines 11-29).

Surine discloses a buffer function, which is loaded from ROM and then is setup within an embedded computer system's RAM for allocating buffer memory upon the

powering up of the device (figures 8, 9, column 4, lines 46-column 6, line 2, column 7, lines 45-57, column 8, line 65-column 9, line 21).

Regarding claims 13 and 15, Howe discloses a broadcast receiver 100 (figure 8) for separating multiplexed transport stream data (digital MPEG2 streams encapsulated in ATM cells, column 9, lines 54-65, column 21, lines 20-29), which utilizes a processor, which loads data from computer readable medium (column 22, lines 10-20),

A processing unit 1228, reads instructions from a computer readable medium (column 22, lines 10-27).

Howe fails to disclose a memory for storing said received transport stream data and containing a pre-stored bit-rate value that indicates the bit-rate of the transport stream before receipt of the transport stream and corresponding to a country of origin of the broadcast, a processing unit which reads the prestored bit rate value and determines an optimal buffer size in accordance with a bit rate of said received transport stream data,, and reserves in memory in response to a power reset signal in the receiver, a storage area having a optimal buffer size, and a demultiplexer which utilizes the storage area for separating transport packets from the received transport stream.

Metz discloses in Figure 6, a Set top box 100, which receives MPEG 2 video encapsulated in ATM cells that encapsulated by ATM multiplexer 29, an ATM demux and MPEG system demux 127 within the STB 100 reassembles the MPEG video/audio prior to it being supplied to audio decoder 131 and video decoder 129 (column 16, line 48-column 17, line 16, column 23, lines 16-56, column 32, lines 4-31). Metz inherently

includes a buffer, as a buffer is required to store the ATM cells prior to reassembling the cells into MPEG 2 streams.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify Howe to transmit MPEG 2 video encapsulated in ATM cells which is converted back into MPEG 2 video at the Set Top Box which utilizes a demultiplexer and memory as taught by Metz thus providing more bandwidth for each channel.

The combination of Howe and Metz fails to disclose a memory for storing said received transport stream data and containing a pre-stored bit-rate value that indicates the bit-rate of the transport stream before receipt of the transport stream and corresponding to a country of origin of the broadcast, a processing unit which reads the prestored bit rate value and determines an optimal buffer size in accordance with a bit rate of said received transport stream data,, and reserves in memory in response to a power reset signal in the receiver, a storage area having a optimal buffer size.

The 1394 reference discloses, that in response to a power on signal, a receiver receives information regarding the bandwidth (bitrate) of the transport stream data to be transmitted as well as the source of the data during a handshake operation, this bandwidth is then utilized for the transmission of data ( pages 19-20, 209-227, 241-242 and 343-351) in order to ensure that data is routed properly to the correct device at the correct bandwidth.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe and Metz to utilize the power on features, bit rate storage and source of origin features as taught by the 1394 reference, for the

advantage of ensuring that the data is routed properly to the correct device at the correct bandwidth.

Kinghorn discloses a receiver, which receives a classification code that indicates a country of origin (column 7, lines 8-29, 60-column 8, line 4) and allows a user to select programming from particular countries (figure 5 d/e, column 10, lines 31-54). A user may exclude programs from certain regions, which may be desirable when a particular country is transmitting propaganda material, excessive levels of violence or sexual content (column 10, lines 39-54).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, and 1394 to utilize the country codes and filtering features as taught by Kinghorn, for the advantage of enabling the user to filter through objectionable programming (column 10, lines 39-54).

The combination of Howe, Metz, 1394 and Kinghorn fails to disclose a memory for storing said received transport stream data, a processing unit which reads the prestored bit rate value and determines an optimal buffer size in accordance with a bit rate of said received transport stream data, and reserves in memory in response to a power reset signal in the receiver, a storage area having a optimal buffer size

Bruls discloses a buffering system that prestores bitrate information related to a program which has a start and end time specified by a user in advance and utilizes different bitrates according to the contents of the signal (source of origin), additionally the bitrate may be a prestored value based upon the average bitrate of incoming

transport stream signals over time, (paragraphs 22-26, 28) thus maximizing the available buffer space by utilizing a bitrate that is appropriate for the content signal.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, 1394, Kinghorn to prestore a bitrate value based on transport stream data and source of origin, as taught by Bruls, thus maximizing the available buffer space by utilizing a bitrate that is appropriate for the content signal.

The combination of Howe, Metz, 1394, Kinghorn and Bruls fails to disclose performing the buffer size determination after a power reset signal is issued

Surine discloses a buffer function, which is loaded from ROM and then is setup within an embedded computer system's RAM for allocating buffer memory upon the powering up of the device (figures 8, 9, column 4, lines 46-column 6, line 2, column 7, lines 45-57, column 8, line 65-column 9, line 21), thus ensuring that a buffer would be available as soon as possible. Surine inherently detects a power up signal, as Surine discloses in Figure 8 and 9, that the boot code from the ROM is executed after power up steps 801 and 901.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, 1394, Kinghorn and Bruls to load up a buffer program upon device startup as taught by Surine, thus enabling a device to receive and process data as soon as possible.

The examiner takes official notice that a user pressing a power on and a power reset button, which transmits a power on signal, is well known in the art. Power on

buttons and power reset buttons enable a user to clear a device of an error state and enable a user to turn on a device at a time of their own choosing.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, Surine, Kinghorn and 1394 to utilize a power on and power reset button, thus enabling a user to turn on a device at any time of their choosing, and allowing a user to reset a receiver if the receiver crashes.

Regarding claim 14, Howe discloses a set top box 100 in figure 8, which receives an analog or digital video signal. A processor 1228 controls the operation of the receiver (column 22, lines 11-25).

Regarding claims 16-23, Surine discloses a buffer function, which is loaded from ROM and then is setup within an embedded computer system's RAM for allocating buffer memory upon the powering up of the device (figures 8, 9, column 4, lines 46-column 6, line 2, column 7, lines 45-57, column 8, line 65-column 9, line 21). Surine inherently detects a power up signal, as Surine discloses in Figure 8 and 9, that the boot code from the ROM is executed after power up steps 801 and 901.

Howe, Metz, Surine, Bruls and 1394 do not disclose the use of a power reset, or a switch for a user to turn on the power to the device.

The examiner takes official notice that a user pressing a power on and a power reset button, which transmits a power on signal, is well known in the art. Power on

buttons and power reset buttons enable a user to clear a device of an error state and enable a user to turn on a device at a time of their own choosing.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Howe, Metz, Bruls, Surine and 1394 to utilize a power on and power reset button, thus enabling a user to turn on a device at any time of their choosing, and allowing a user to reset a receiver if the receiver crashes.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-272-7298. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hunter B. Lonsberry
Primary Examiner
Art Unit 2623

HBL